

IN THE CLAIM

Please amend the claims as follows:

1. (original) Method for coding a stream of M input words using a channel code,
comprising the steps of
 - selecting a frame sync extension from a group of frame sync extensions
 - pre-coding the stream of M input words into a stream of pre-coded input words
 - coding the stream of pre-coded input words into a stream of groups of N code words using a coder
 - inserting a frame sync body directly in a fixed length frame in the stream of groups of N code words
 - arranging for a group of code words representing the frame sync extension in the stream of groups of N code words directly adjacent to the inserted frame sync body where, after a further NRZI coding, a disparity of the frame sync body is balanced by a disparity of the group of code words representing the frame sync extension, characterized in that a length of the group of code words representing the frame sync extension is variable.

2. (original) Method as claimed in claim 1,
characterized in that the coder is a 17PP coder

3. (original) Method as claimed in claim 1,
characterized in that the coder is an EFM coder

4. (original) Method as claimed in claim 1,
characterized in that the coder is an EFM+ coder

5. (currently amended) Method as claimed in claim 1, ~~2, 3 or 4~~,
characterized in that the step of arranging for the group of code
words representing the frame sync extension in the stream of groups
of N code words comprises the step of inserting a frame sync
balancing input word into the stream pre-coded input words.

6. (currently amended) Method as claimed in claim 1, ~~2, 3 or 4~~
characterized in that the step of arranging for the group of code
words representing the frame sync extension in the stream of groups
of N code words comprises the step of inserting a code word
representing the frame sync extension into the stream of groups of
N code words

7. (original) Method as claimed in claim 6,
characterized in that the group of code words representing the

frame sync extension in the stream of groups of N code words is chosen from the following table:

Frame Sync extension								
FS0	0	0	0	1	0	0	1	0
FS1	0	1	0	1	0	0	1	0
FS2	1	0	1	0	0	1	0	0
FS3	1	0	0	1	0	0	0	1
FS4	0	0	0	1	0	1	0	0
FS5	0	0	1	0	0	1	0	0
FS6	0	1	0	0	0	1	0	0
FS7	1	0	0	1	0	1	0	1
FS8	1	0	1	0	1	0	0	1

8. (original) Method as claimed in claim 5, characterized in that a first sub group of code words representing a first section of the frame sync extension in the stream is chosen from the following table:

first section of frame sync extension								
FS0	0	0	0	1	0	0	1	0
FS1	0	1	0	1	0	1	0	0
FS2	1	0	1	0	0	0	0	1
FS3	1	0	0	1	0	0	1	0
FS4	0	0	0	1	0	0	0	1
FS5	0	0	1	0	0	1	0	0

FS6	010 000
FS7	100 101
FS8	101 010

and that a frame sync balancing input word is chosen from the following table:

	frame sync balancing input word
FS0	11 10 10 11
FS1	10 11 10 10
FS2	10 11 11 11
FS3	11 01 10 10
FS4	00 11 10 10
FS5	10 11 11 10
FS6	10 11 01 01
FS7	none
FS8	none

9. (original) Record carrier for storing a stream comprising code words derived from input words using a channel code and further comprising a frame sync comprising a frame sync extension, the frame sync extension comprising a frame sync identification and a frame sync balancing word where a disparity of the frame sync is zero,

characterized in that a length of the frame sync extension is

variable.

10. Record carrier as claimed in claim 9,
characterized in that the channel code is a 17PP code

11. (original) Record carrier as claimed in claim 9,
characterized in that the channel code is an EFM code.

12. (original) Record carrier as claimed in claim 9,
characterized in that the channel code is an EFM+ code.

13. (currently amended) Method as claimed in claim 9, ~~10, 11 or~~
~~12,~~

characterized in that the group of code words representing the
frame sync extension in the stream is chosen from the following
table:

	Frame Sync extension
FS0	000 001 000 001 001 000
FS1	010 010 001 000 001 001
FS2	101 000 001 000 101 000
FS3	100 001 000 010 001 001
FS4	000 100 010 100 001 001
FS5	001 001 001 000 101 001
FS6	010 000 001 000 010 010

FS7	100 101
FS8	101 010

14. (original) Apparatus for storing data on a recording medium comprising an encoder with an output connected to an input of a frame sync insertion means where the encoder is arranged for coding the stream of input words into a stream of code words and the insertion means is arranged for inserting a group of code words representing a frame sync body into the stream of code words, where the encoder is arranged to control an RDS of the code words and where the insertion means is arranged to insert a group of code words representing a frame sync extension with a frame sync extension disparity into the stream adjacent to the code words representing the frame sync body, where the frame sync extension disparity is chosen to cancel a disparity of the group of code words representing the frame sync body,
characterized in that a length of the group of code words representing the frame sync extension is variable.

15. Apparatus for storing data on a recording medium comprising an encoder with an input and with an output connected to an input of a frame sync insertion means where the encoder is arranged for coding the stream of input words into a stream of code words and the insertion means is arranged for inserting a group of code words

representing a frame sync body into the stream of code words, where the encoder is arranged to control an RDS of the code words and where the insertion means is arranged to insert a first sub group of code words representing a first section of a frame sync extension into the stream adjacent to the group of code words representing the frame sync body, and where a further insertion means is coupled to the input of the encoder , where the further insertion means is arranged to provide a frame sync balancing input word to the encoder for obtaining a second sub group of code words representing a second section of the frame sync extension at the output of the encoder, where the group of code words representing the frame sync extension comprsies the first sub group of code words representing the first section of the frame sync extension and the second sub group of code words representing the second section of the frame sync extension, and where the frame sync balancing input word is chosen to cancel a disparity of the group of code words representing the frame sync body, characterized in that a length of the group of code words representing the frame sync extension is variable.

16. (currently amended) Apparatus for storing data on a recording medium as claimed in claim 14—~~or~~ 15,
characterized in that the coder is a 17PP coder

17. (currently amended) Apparatus for storing data on a recording medium as claimed in claim 14—~~or~~ 15,
characterized in that the coder is an EFM coder

18. (currently amended) Apparatus for storing data on a recording medium as claimed in claim 14—~~or~~ 15,
characterized in that the coder is an EFM+ coder

19. (currently amended) Apparatus for storing data on a recording medium as claimed in claim 14, ~~15 or 16~~,
characterized in that a group of code words representing the frame sync extension in the stream is chosen from the following table:

first section of frame sync extension

FS0	000 001 000 001 001 000
FS1	010 010 001 000 001 001
FS2	101 000 001 000 101 000
FS3	100 001 000 010 001 001
FS4	000 100 010 100 001 001
FS5	001 001 001 000 101 001
FS6	010 000 001 000 010 010
FS7	100 101
FS8	101 010

20. (currently amended) Apparatus for storing data on a recording medium as claimed in claim 15—~~or~~¹⁶, characterized in that the first sub group of code words representing the first section of the frame sync extension in the stream is chosen from the following table:

Frame Sync sub ID	
FS0	000 001
FS1	010 010
FS2	101 000
FS3	100 001
FS4	000 100
FS5	001 001
FS6	010 000
FS7	100 101
FS8	101 010

and that the frame sync balancing input word is chosen from the following table:

frame sync balancing input word	
FS0	11 10 10 11
FS1	10 11 10 10
FS2	10 11 11 11
FS3	11 01 10 10
FS4	00 11 10 10
FS5	10 11 11 10

FS6 10 11 01 01

FS7 none

FS8 none